

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 11-001605

(43)Date of publication of application : 06.01.1999

(51)Int.Cl.

C08L 67/02

C08K 9/04

(21)Application number : 09-154734

(71)Applicant : UNITIKA LTD

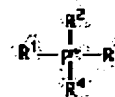
(22)Date of filing : 12.06.1997

(72)Inventor : YOSHIKAWA MASATAKE  
KUBOTA TOMOKO

## (54) POLYESTER COMPOSITE MATERIAL

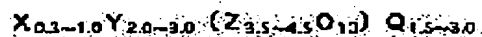
### (57)Abstract:

**PROBLEM TO BE SOLVED:** To obtain a composite material having sufficient mechanical properties and heat resistance and an excellent hue in improved productivity by incorporating a layered silicate containing ionically bonded organophosphonium ions among the layers and prepared by subjecting e.g. tetraethylphosphonium and a layered silicate such as montmorillonite to an ion exchange reaction in a thermoplastic polyester.



I.

**SOLUTION:** The thermoplastic polyester may be a crystalline or amorphous one. In further detail, it is particularly desirably polyethylene phthalate. The layered silicate containing ionically bonded organophosphonium ions among the layers is one derived by replacing X of a layered silicate represented by formula II (wherein X is



II.

an interlayer alkali metal ion; Y is an octahedral configuration ion; Z is a tetrahedral configuration ion; and Q is OH- or F-) by an organic ion represented by formula I (wherein R1 to R4 are each a 1-20C alkyl, carboxyl, phenyl or the like) and is desirably used in such an amount that the inorganic matter content of the composite material is 1-5 wt.%.

## LEGAL STATUS

[Date of request for examination]

31.05.2004

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office